

FIREWISE CONSTRUCTION

FireWise Construction

FireWise Neighborhood

This neighborhood has acted to reduce accumulations of hazardous forest-fuels, promote the use of limited-combustible building materials, and educate property owners regarding the risk of wildfire and steps necessary to reduce the threat.

In recognition of this achievement, this award is presented by the Flagstaff Fire Department.

What Is FireWise Construction

- Promotes fire resistiveness
- Required for new construction (in Flagstaff)
- Found predominately in the Wildland-Urban Interface
- Compliments vegetation management
- Behavior modification (landscaping & storage)

- Site location
- Roof material
- Roof venting
- Soffits & eaves
- Siding material
- Deck material & construction

What is the Wildland – Urban Interface?

Traditional Definition

Where structural improvements are built in close proximity to or among forested areas.

New Definition

Where community values may be threatened by a catastrophic wildfires.

Values such as:
watersheds, wildlife
habitat, recreation,
economic development,
public health, emotional
connectedness to the land.

Traditional Wildland – Urban Interface



FireWise Roofs

Burning Brand Test –
brands applied to roof
covering (to see if they
ignite)

Flying Brand Test – flame applied to roof covering (to see if they create flying embers)

Class A – effective against severe fire exposure.

Class B – effective against moderate fire exposure.

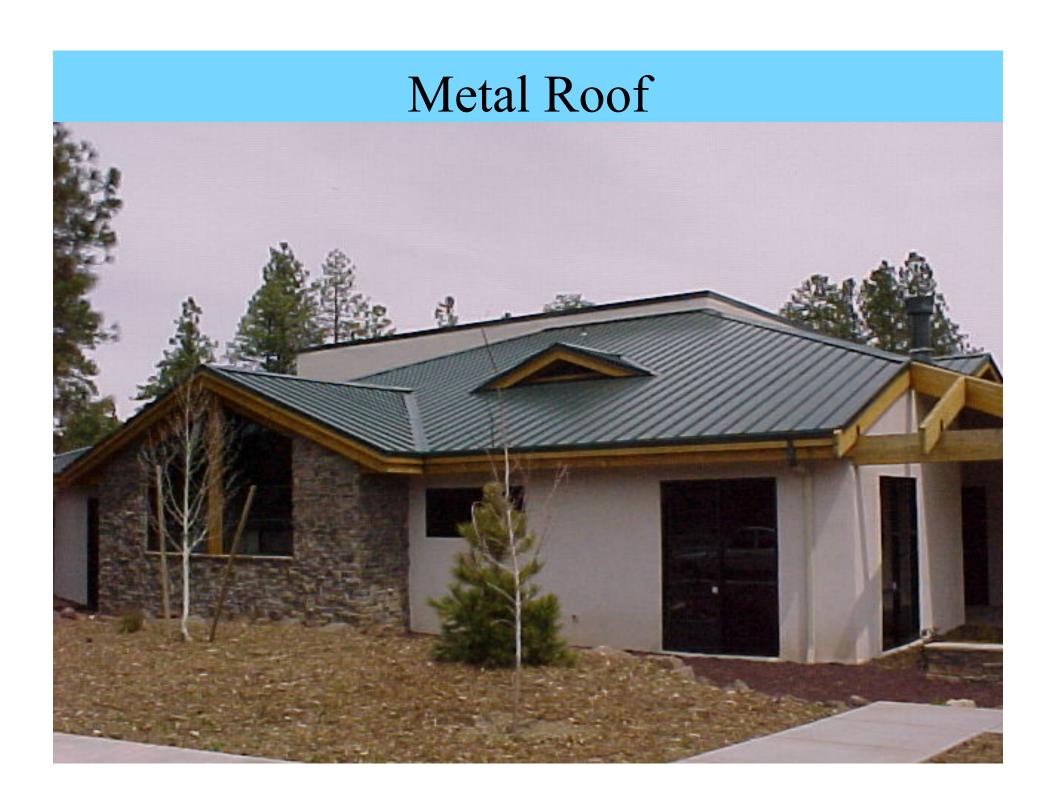
Class C – effective against light fire exposure.

Flame Spread also tested.

FireWise Roofs

- Metal: sheet & shingles
- Slate Shingles
- Clay Tile
- Asphalt Shingles
- Fiber-cement Shingles
- Membrane Roofs: covered with concrete

NO WOOD SHAKES OR SHINGLES!!



Slate Shingles



Clay Tile



FireWise Soffits & Roof Venting

Soffits

The extension of the roof beyond the exterior wall is the eave. Enclosing the eave creates a soffit.

Roof Venting

- Gable vents
- Turbine vents
- Metal vents
- Eave fascia vents
- Dormer vents
 Vents subject to embers need wire mesh ¼ inch or smaller

Gable Vents

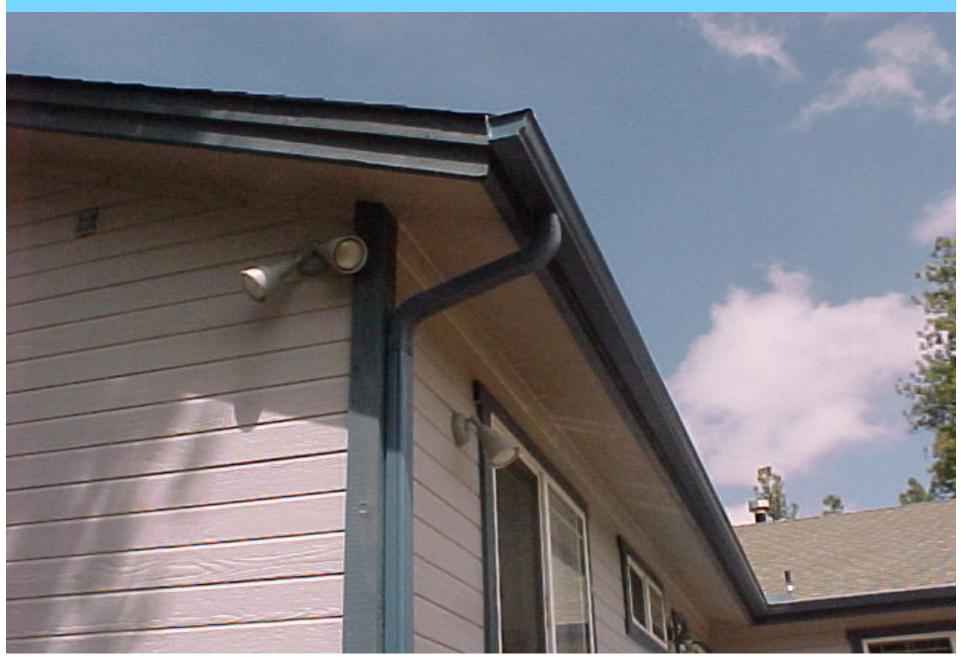
Metal Vents



Dormer Vents



Soffit Enclosures



Siding Material

- Fiber Cement Products
 - HardiBoard
 - HardiPlank
- Masonry Products
 - Concrete block
 - Rock (veneer or solid)
 - Stucco

Fiber Cement Siding



Stucco



FireWise Decks

- Deck assemblies are not lab tested for performance in wildfires.
- Deck assemblies are not tested like roofs are tested.
- Decks are second most vulnerable component of a home to ignite during wildfires.
- Accumulation of debris (ex: pine needles) on surface and vegetation under decks are primary problems.

Flagstaff Fire Dept Deck Tests

- Ad Hoc tests periodically.
- Decks subjected to burning embers.
- Decks subjected to a surface fire.
- Wood and composite materials

Deck Test – Burning Embers



Deck Test – Burning Embers



Deck Test – Surface Fire



Deck Test – Surface Fire



Deck Test – Surface Fire



Deck Stairs



Deck Stairs







Vegetation Management

- Ponderosa Pine forests are a "fire dependant" ecosystem. (low intensity & frequent fire)
- Catastrophic wildfire is NOT NORMAL.
- Historical tree density between 20 to 60 trees per acre.
- Existing tree density between 200 1,000 trees per acre.
- Thin first, then broadcast burn.
- Remove fuel ladders & horizontal continuity.
- Landscape with fire resistant plants.

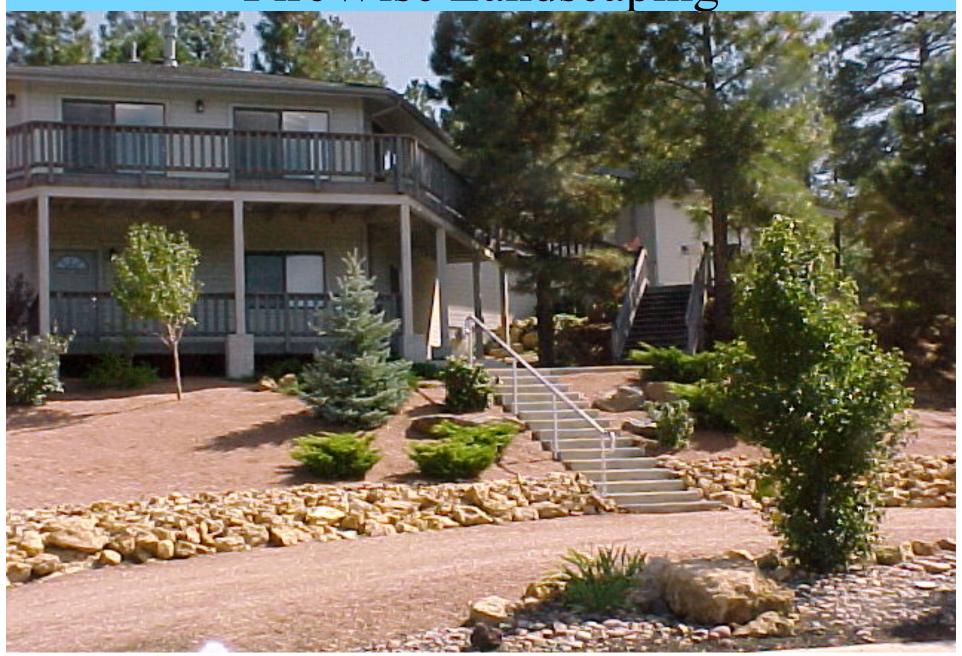
Current Vegetative Condition



Thinned Area After Treatment



FireWise Landscaping



Summary

- FireWise development is affordable and attainable with existing technology.
- Educating the community is preferred over enforcement, but enforcement may be necessary.
- Human behaviors must be addressed (storage under decks, maintenance & woodpiles).
- Homeowner responsibility and accountability is key to community safety.
- The Flagstaff Fire Dept and others will help.
- Call Flagstaff Fire at (928) 213-2500 or visit our website: www.flagstaff.az.gov/wildlandfire.

Don't Be This Guy

